

Remarks

The Office Action dated July 15, 2005 has been carefully reviewed and the foregoing amendments have been made as a consequence thereof.

Claims 1-5 and 7-29 are now pending in this application. Claims 1-5 and 7-29 stand rejected. Claim 6 has been canceled without prejudice, waiver, or disclaimer. Claims 1, 12, and 22 have been amended. No new matter has been added.

The rejection of Claims 1-5 and 7-29 under 35 U.S.C. § 103(a) as being unpatentable over Koether (U.S. Patent 5,875,430) in view of Andruzzi, Jr. et al. (U.S. Patent 4,580,256) is respectfully traversed.

Koether describes a system in which each kitchen appliance (110) is preferably provided with a RF transmitter (120), RF receiver (130) and microprocessor based controller (140) (column 4, lines 25-28). In the system, each kitchen base station (150) is capable of communicating through wireless means, such as through cellular radio or other wireless means, with corresponding kitchen appliances (110) (column 5, lines 3-8). As such, each kitchen base station includes an RF transmitter (160) and an RF receiver (165) (column 5, lines 11-13). Wire interconnections are not desirable, due primarily to the likelihood of such wires being inadvertently cut by culinary instruments (column 5, lines 13-15). Of course, satellite, microwave or infrared communication may also be used (column 5, lines 16-20). In the system, on site repair is enhanced through use of a portable hand held terminal (810) having, for example, a Palm/Laptop computer linked to a microprocessor based controller (140) by a suitable interface, such as, for example, a wireless RS-232 interface using infrared communication (column 10, lines 1-6). Of course, wireline or optical interfaces may also be used (column 10, lines 6-7). The hand held terminal interrogates the controller to ascertain a model and model number of an appliance under service, and then diagnoses abnormal operating conditions (column 10, lines 9-12).

Andruzzi, Jr. et al. describe a transmission-medium-specific in favor of a set of electrical conductors which may be wire pairs or coaxial cables (column 2, lines 44-46). Such an LAN could be designated electrical system transporter (EST), and it could function along the lines of a common power-line carrier system (PLC) (column 2, lines 46-50). The EST operates within a localized transmission medium defined by an electrical distribution system of a building, house or any localized residential/commercial complex (column 2, lines 50-54). Accordingly, data is exchanged in bidirectional fashion (half-duplex) among at least one network master modem, to which is connected a computer, and a plurality of slave modems which are appropriately connected to separate electronic devices, alarms, printers, thermostats, appliances, monitors or communication terminals (column 2, lines 54-60). Error rates and noise rejection characteristics of a modem employing a hybrid amplitude-shift keying/frequency-shift keying (ASK/FSK) data encoding and transmission scheme are so conducive to high reliability in data handling that a satisfactory EST, including one master and up to 256 slave modems, is disclosed utilizing only 3-bit protocols and 8-bit modem addresses (column 3, lines 11-17).

Claim 1 recites a method of performing service diagnostics on appliances, the method comprising “connecting a diagnostic interface within a building housing the appliance to a local area appliance network, wherein the diagnostic interface includes a display; accessing an appliance in the local area appliance network; performing service diagnosis of the appliance through said diagnostic interface over the local area appliance network using service functions in the appliance; and implementing the diagnostic interface within a single device including the display, a processing circuitry generating service commands to perform the service diagnosis, and a power line carrier modem configured to modulate data to communicate the data over an alternating current (AC) power line.”

Neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest a method of performing service diagnostics on appliances as recited in Claim 1. Specifically, neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest implementing the diagnostic interface within a single device including the

display, a processing circuitry generating service commands to perform the service diagnosis, and a power line carrier modem configured to modulate data to communicate the data over an alternating current (AC) power line. Rather, Koether describes a kitchen appliance that is preferably provided with an RF transmitter and an RF receiver. Koether further describes a kitchen base station that also includes an RF transmitter and an RF receiver. The base station communicates through wireless means, such as through cellular radio or other wireless means, with the kitchen appliance. Instead of the wireless means, wire interconnections, satellite, microwave or infrared communication, may be used. Koether further describes a laptop computer linked to a microprocessor based controller of the appliance via a suitable interface, such as, for example, a wireless RS-232 interface using infrared communication. Instead of the wireless RS-232 interface, wireline or optical interfaces may be used. Andruzzi, Jr. et al. describe a modem that employs a hybrid amplitude-shift keying/frequency-shift keying (ASK/FSK) data encoding and transmission scheme. The modem has error rates and noise rejection characteristics that are conducive to high reliability in data handling to provide a satisfactory electrical system transporter (EST), which functions along the lines of a common power-line carrier system. Accordingly, neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest implementing the diagnostic interface within a single device including the display, a processing circuitry, and a power line carrier modem configured to modulate data to communicate the data over an alternating current power line. For at least the reasons above, Claim 1 is respectfully submitted to be patentable over Koether in view of Andruzzi, Jr. et al.

Claims 2-5 and 7-11 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2-5 and 7-11 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-5 and 7-11 likewise are patentable over Koether in view of Andruzzi, Jr. et al.

Claim 12 recites a diagnostic interface for performing service diagnostics on appliances, the diagnostic interface comprising “a display for viewing diagnostic and service information; processing circuitry for generating service commands for an appliance; and a

power line carrier communication interface configured to be connected to a local area appliance network within a building housing the appliance, wherein said power line carrier communication interface facilitates transmitting the service commands to the appliance and receiving appliance diagnostic results on a power line carrier communication system, and said diagnostic interface implemented within a single device including said display, said processing circuitry generating the service commands to service the appliance, and said power line communication interface configured to modulate data to communicate the data over an alternating current (AC) power line.”

Neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest a diagnostic interface for performing service diagnostics on appliances as recited in Claim 12. Specifically, neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest the diagnostic interface implemented within a single device including the display, the processing circuitry generating the service commands to service the appliance, and the power line communication interface configured to modulate data to communicate the data over an alternating current (AC) power line. Rather, Koether describes a kitchen appliance that is preferably provided with an RF transmitter and an RF receiver. Koether further describes a kitchen base station that also includes an RF transmitter and an RF receiver. The base station communicates through wireless means, such as through cellular radio or other wireless means, with the kitchen appliance. Instead of the wireless means, wire interconnections, satellite, microwave or infrared communication, may be used. Koether further describes a laptop computer linked to a microprocessor based controller of the appliance via a suitable interface, such as, for example, a wireless RS-232 interface using infrared communication. Instead of the wireless RS-232 interface, wireline or optical interfaces may be used. Andruzzi, Jr. et al. describe a modem that employs a hybrid amplitude-shift keying/frequency-shift keying (ASK/FSK) data encoding and transmission scheme. The modem has error rates and noise rejection characteristics that are conducive to high reliability in data handling to provide a satisfactory electrical system transporter (EST), which functions along the lines of a common power-line carrier system. Accordingly, neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest the

diagnostic interface implemented within a single device including the display, the processing circuitry, and the power line communication interface configured to modulate data to communicate the data over an alternating current power line. For at least the reasons above, Claim 12 is respectfully submitted to be patentable over Koether in view of Andruzzi, Jr. et al.

Claims 13-21 depend, directly or indirectly, from independent Claim 12. When the recitations of Claims 13-21 are considered in combination with the recitations of Claim 12, Applicants submit that dependent Claims 13-21 likewise are patentable over Koether in view of Andruzzi, Jr. et al.

Claim 22 recites a diagnostic system for providing access to service diagnostics on an appliance, the system comprising “a local area appliance network coupled to the appliance; a diagnostic interface configured to be connected to said local area appliance network within a building housing the appliance, said diagnostic interface comprising a display, wherein said diagnostic interface facilitates accepting service diagnostics commands destined for the appliance, the diagnostics interface implemented within a single device including a display device, a microprocessor configured to generate the diagnostics commands, and a power line carrier modem configured to modulate data to communicate the data over an alternating current (AC) power line; and a dedicated appliance controller for receiving and executing the diagnostics commands.”

Neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest a diagnostic system for providing access to service diagnostics on an appliance as recited in Claim 22. Specifically, neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest the diagnostics interface implemented within a single device including a display device, a microprocessor configured to generate the diagnostics commands, and a power line carrier modem configured to modulate data to communicate the data over an alternating current (AC) power line. Rather, Koether describes a kitchen appliance that is preferably provided with an RF transmitter and an RF receiver. Koether

further describes a kitchen base station that also includes an RF transmitter and an RF receiver. The base station communicates through wireless means, such as through cellular radio or other wireless means, with the kitchen appliance. Instead of the wireless means, wire interconnections, satellite, microwave or infrared communication, may be used. Koether further describes a laptop computer linked to a microprocessor based controller of the appliance via a suitable interface, such as, for example, a wireless RS-232 interface using infrared communication. Instead of the wireless RS-232 interface, wireline or optical interfaces may be used. Andruzzi, Jr. et al. describe a modem that employs a hybrid amplitude-shift keying/frequency-shift keying (ASK/FSK) data encoding and transmission scheme. The modem has error rates and noise rejection characteristics that are conducive to high reliability in data handling to provide a satisfactory electrical system transporter (EST), which functions along the lines of a common power-line carrier system. Accordingly, neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest the diagnostics interface implemented within a single device including a display device, a microprocessor, and a power line carrier modem configured to modulate data to communicate the data over an alternating current power line. For at least the reasons above, Claim 22 is respectfully submitted to be patentable over Koether in view of Andruzzi, Jr. et al.

Claims 23-29 depend from independent Claim 21. When the recitations of Claims 23-29 are considered in combination with the recitations of Claim 22, Applicants submit that dependent Claims 23-29 likewise are patentable over Koether in view of Andruzzi, Jr. et al.

For at least the reasons set forth above, Applicants respectfully request that the 103 rejection of Claims 1-5 and 7-29 be withdrawn.

Moreover, Applicants respectfully submit that the Section 103 rejection of Claims 1-5 and 7-29 is not a proper rejection. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. Neither Koether nor Andruzzi, Jr. et al., considered alone or in combination, describe or suggest the claimed

combination. Furthermore, in contrast to the assertion within the Office Action, Applicants respectfully submit that it would not be obvious to one skilled in the art to combine Koether with Andruzzi, Jr. et al. because there is no motivation to combine the references suggested in the cited art itself.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex parte Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicants' disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicants' disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

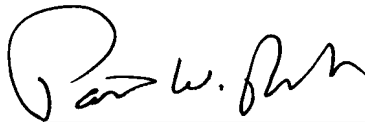
Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Koether teaches a kitchen appliance that is preferably provided with an RF transmitter and an RF receiver. Koether further teaches a kitchen base station that also includes an RF transmitter and an RF receiver. The base station communicates through wireless means, such as through cellular radio or other wireless means, with the kitchen appliance. Instead of the wireless means, wire interconnections, satellite, microwave or infrared communication, may be used. Koether further teaches a laptop computer linked to a microprocessor based controller of the appliance via a suitable interface, such as, for example, a wireless RS-232 interface using infrared communication.

Instead of the wireless RS-232 interface, wireline or optical interfaces may be used. Andruzzi, Jr. et al. teach a modem that employs a hybrid amplitude-shift keying/frequency-shift keying (ASK/FSK) data encoding and transmission scheme. The modem has error rates and noise rejection characteristics that are conducive to high reliability in data handling to provide a satisfactory electrical system transporter (EST), which functions along the lines of a common power-line carrier system. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejection appears to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejection of Claims 1-5 and 7-29 be withdrawn.

For at least the reasons set forth above, Applicants respectfully request that the 103 rejection of Claims 1-5 and 7-29 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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